

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

1.-20. (Cancelled).

21. (New) A method for dynamically selecting a route in a data network to an application, wherein the application is available at a plurality of distinct network locations, each of the network locations served by at least one network service provider and a first one of the network locations served by a plurality of service providers, comprising:

receiving an access request for the application;

determining a virtual IP address for the application that is associated with one of the network service providers based upon load data for each of the network locations;

if the virtual IP address corresponds to the first network location, then

analyzing performance data for a path through each of the network service providers serving the first network location; and

based on the performance data, selecting a path through a selected one of the network service providers serving the first network location;

if the virtual IP address is associated with the selected network service provider, then providing the virtual IP address in response to the access request; and

if the virtual IP address is not associated with the selected service provider, then providing an IP address that is associated with the selected service provider in response to the access request.

22. (New) The method of Claim 21, wherein analyzing performance data for a path through each of the network service providers serving the first network location comprises:
analyzing performance data for paths associated with a local name server that sent the access request.

23. (New) The method of Claim 21, wherein analyzing performance data for a path through each of the network service providers serving the at least one network location comprises:

analyzing performance data for paths associated with an address prefix associated with a client that originated the access request.

24. (New) The method of Claim 21, wherein the performance data includes load data.

25. (New) The method of Claim 21, further comprising:

if the virtual IP address corresponds to another one of the network locations, then selecting the network service provider associated with the virtual IP as the selected network service provider.

26. (New) The method of Claim 21, wherein another one of the network locations is served by a plurality of service providers, further comprising:

if the virtual IP address corresponds to the other network location, then
analyzing performance data for a path through each of the network service providers serving the other network location; and
based on the performance data, selecting a path through a selected one of the network service providers serving the other network location.

27. (New) A computer readable medium, having computer-executable instructions imposed thereupon for carrying out the following steps:

receiving an access request for an application wherein the application is available at a plurality of distinct network locations, each of the network locations served by at least one network service provider and a first one of the network locations served by a plurality of service providers;

determining a virtual IP address for the application that is associated with one of the network service providers based upon load data for each of the network locations;

if the virtual IP address corresponds to the first network location, then

analyzing performance data for a path through each of the network service providers serving the first network location;

based on the performance data, selecting a path through a selected one of the network service providers serving the first network location; and

providing an IP address that is associated with the selected service provider in response to the access request; and

if the virtual IP address corresponds to another one of the network locations, then providing the virtual IP address in response to the access request.

28. (New) The computer readable medium of Claim 27, wherein analyzing performance data for a path through each of the network service providers serving the first network location comprises:

analyzing performance data for paths associated with a local name server that sent the access request.

29. (New) The computer readable medium of Claim 27, wherein analyzing performance data for a path through each of the network service providers serving the at least one network location comprises:

analyzing performance data for paths associated with an address prefix associated with a client that originated the access request.

30. (New) The computer readable medium of Claim 27, wherein the performance data includes load data.

31. (New) A system for dynamically selecting a route in a data network to an application, comprising:

a plurality of distinct network locations, wherein the application is available at each of the network locations;

a plurality of network service providers, wherein a first network location is served by a first set of network service providers;

a plurality of load balancers, each load balancer associated with one of the network locations, wherein each load balancer monitors a load of its associated network location and communicates load information to the other load balancers and wherein a first load balancer is associated with the first network location;

a plurality of name server forwarders, each name server forwarder associated with a load balancer, wherein each name server forwarder requests address information from its associated load balancer and communicates with the other name server forwarders and wherein a first name server forwarder is associated with the first load balancer; and

a plurality of flow control platforms (FCPs), each FCP associated with a name server forwarder, wherein each FCP collects performance data for paths through the network service providers serving its associated network location and communicates the performance data to its associated name server forwarder and wherein a first FCP is associated with the first name server forwarder;

wherein the first name server forwarder responds to an access request for the application by requesting address information from the first load balancer, determines whether the address information provided by the load balancer identifies a network service provider in the first set of the network service providers and if so, analyzes performance data from the first FCP, and provides an address that identifies a selected one of the network service providers in the first set of network service providers based on the performance data received from the FCP.

32. (New) The system of Claim 31, wherein at least one of the FCP uses active probing techniques to collect performance data for paths through the network service providers serving its associated network location.

33. (New) The system of Claim 31, further comprising a plurality of local name servers in communication with the first name server.

34. (New) The system of Claim 33, wherein the first name server includes a zone loop up table that associates a local name server with a zone file.